## REMARKS

Claims 1-26 are pending and are rejected. Reconsideration and allowance of Claims 1-26 are respectfully requested.

Amendments to Specification

Applicants amend paragraphs [0065] and [0093] to correct clerical errors, and amend paragraph [0033] to include updated status information for a referenced U.S. Patent Application. No new matter is introduced.

Claim Rejections under 35 USC §102 over Onvural

Claims 1, 2, 5, 7, 8, and 10-26 are rejected under 35 USC §102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0150115 to Onvural et al (hereinafter referred to as Onvural). Applicants respectfully traverse these rejections.

Independent Claim 1

Applicants' Claim 1 recites:

A traffic management processor for scheduling packets for transmission across a network, comprising:

a departure time calculator for generating a departure time for each packet;

a departure time prioritizer for comparing the departure times with each other to determine which of the departure times is the earliest; and

a token generator for generating a token for each packet.

Onvural fails to disclose or suggest the traffic management processor of Applicants' Claim 1.

The Office Action states that Onvural teaches "a departure time prioritizer for comparing the departure times with each other to determine which of the departure times is the earliest (see paragraph 24 lines 1-2)." Applicants disagree.

The paragraph in Onvural cited by the Office Action provides:

> The sorter 14 takes packets from the array of input queues and
> schedules them in EDF order. The sorter 14 is illustrated in greater detail
> in FIG. 3. The sorter 14 includes an output packet store 20, an index 22
> and a controller or control hardware 24. The output packet store 20 is
> made up of a number of slots 26, where each slot 26 constitutes enough
> memory to store a single packet. In one embodiment, the sorter 14
> possesses many more slots 26 than the number of packets expected to
> arrive at the scheduler 10. The sorter is therefore sparse. The sorter
> places packets in the slots 26 of the output packet store 20 according to
> their timestamps. Each slot 26 in the output packet store 20 corresponds
> to a discrete transmission time. *The next packet transmitted by the node*
> *is the packet stored in the slot 26 corresponding to a* <u>*timestamp closest*</u>
> <u>*to the current time*</u>. The index 22 is used to locate this packet within the
> output packet store (emphasis added).

Accordingly, Onvural teaches that packets stored in the output packet queue
are selected for transmission according to which departure time is *closest to a **current**
**time** value*. Thus, Onvural further states that its "sorter 14 keeps track of the current
time using a pointer 28 stored in a register in the control hardware 24" and that "the
pointer 28 indexes a particular slot in the output packet store 20 corresponding to the
current time."[1]

In contrast to Onvural, Applicants' Claim 1 recites a departure time prioritizer
that compares the departure times **with each other** to determine which of the
departure times is the earliest. The Office Action has NOT pointed to any language in
Onvural that discloses or suggests "comparing departure times with each other to
determine which departure time is the earliest," as recited in Applicants' Claim 1.

Applicants note that comparing the departure times with each other to
determine which departure time is the earliest (as recited in Claim 1), rather than
referencing the departure times to a current time value (as taught by Onvural), may
allow the traffic management processor of Claim 1 to achieve increased throughput.
More specifically, Applicants' specification states that comparing the departure times
with each other allows for the selection of a packet for departure in response to every
compare operation, independent of any current time value, thereby optimizing packet

transmission rates by allowing packets to be continually transmitted.[2] In contrast, prior art systems that "compare departure times with a current time value to select packets for departure may experience idle time during which no packets are transmitted if there is not a match between the current time value and any of the packet departure times."[3] Indeed, Applicants note that that "most of the slots in the sorter [of Onvural] are generally empty."[4]

To anticipate a claim under 35 USC §102, each and every element of the claim must be disclosed in a single reference[5]. The exclusion of a claimed element from a prior art reference is typically enough to negate anticipation under 35 USC §102. Thus, because Onvural fails to disclose or suggest a traffic management processor including "a departure time prioritizer for comparing the departure times with each other to determine which of the departure times is the earliest," as recited in Applicants' Claim 1, Claim 1 is not anticipated by Onvural. Accordingly, Applicants respectfully request the Office to withdraw the rejection of Claim 1.

Claims 2-11 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.


Independent Claim 12

Applicants' Claim 12 recites:

A traffic management processor for scheduling packets for transmission across a network, comprising:

a table having a plurality of rows, each row for storing a departure time for a corresponding packet;

a compare circuit having a plurality of inputs coupled to corresponding rows of the table, the compare circuit operable to compare the departure times stored in the table with each other to determine which row stores the earliest departure time; and

---

1       Onvural, paragraph [0035], lines 1-5.
2       Applicants' Specification, paragraph [0062].
3       Applicants' Specification, paragraph [0063].
4       Onvural, paragraph [0034], lines 3-4.
5       Corning Glass Works v. Sumitomo Electric, 9 USPQ2d 1962, 1965 (Fed. Cir. 1989).

a priority encoder having inputs coupled to corresponding outputs of the compare circuit.

As discussed above with respect to Claim 1, Onvural fails to disclose or suggest a traffic management processor including "a departure time prioritizer for comparing the departure times with each other to determine which of the departure times is the earliest." Therefore, Onvural fails to disclose or suggest a traffic management processor that includes a "compare circuit operable to compare the departure times stored in the table with each other to determine which row stores the earliest departure time," as recited in Applicants' Claim 12. Accordingly, Claim 12 is patentable over Onvural.

Claims 13-18 depend from Claim 12 and therefore distinguish over the cited references for at least the same reasons as Claim 12.

Independent Claim 19

Applicants' Claim 19 recites:

A traffic management processor for scheduling a plurality of packets for transmission across a network, comprising:

a departure time calculator for calculating a departure time for each packet;

a table including a plurality of rows, each for storing the departure time for a corresponding packet;

a compare circuit having inputs coupled to the rows of the table, the compare circuit for comparing the departure times stored in the table with each other to select the row that contains the earliest departure time; and

a priority encoder having a plurality of inputs coupled to corresponding rows of the table, the priority encoder for generating an address of the selected row.

As discussed above with respect to Claim 12, Onvural fails to disclose or suggest a traffic management processor including a "compare circuit operable to compare the departure times stored in the table with each other to determine which row stores the earliest departure time." Therefore, Onvural fails to disclose or suggest

a "compare circuit for comparing the departure times stored in the table with each other to select the row that contains the earliest departure time," as recited in Applicants' Claim 19. Accordingly, Claim 19 is patentable over Onvural.

Claim 20 depends from Claim 19 and therefore distinguishes over the cited references for at least the same reasons as Claim 19.

Independent Claim 21

Applicants' Claim 21 recites:

A method for scheduling a plurality of packets for transmission across a network, comprising:

calculating a departure time for each packet;

comparing the departure times with each other to determine which departure time is the earliest; and

transmitting the packet corresponding to the earliest departure time.

As discussed above with respect to Claim 1, Onvural fails to disclose or suggest a traffic management processor including "a departure time prioritizer for comparing the departure times with each other to determine which of the departure times is the earliest." Therefore, Onvural fails to disclose or suggest "comparing the departure times with each other to determine which departure time is the earliest," as recited in Applicants' Claim 21. Accordingly, Claim 21 is patentable over Onvural.

Claims 22-23 depend from Claim 21 and therefore distinguish over the cited references for at least the same reasons as Claim 21.

Independent Claim 24

Applicants' Claim 24 recites:

A method for scheduling packets for transmission across a network, comprising:

generating a token for each packet;

calculating a departure time for each packet;

storing the departure times in rows of a table addressed by the tokens;

comparing the departure times with each other to determine which departure time is the earliest;

identifying the packet corresponding to the earliest departure time; and

transmitting the identified packet.

As discussed above with respect to Claim 21, Onvural fails to disclose or suggest "comparing the departure times with each other to determine which departure time is the earliest," as recited in Applicants' Claim 24, and therefore Claim 24 is patentable over Onvural.

Claims 25-26 depend from Claim 24 and therefore distinguish over the cited references for at least the same reasons as Claim 24.

Claim Rejections under 35 USC §103 over Onvural

Claims 3, 4, 6, and 9 are rejected under 35 USC §103(a) as being unpatentable over Onvural in view of various other references. Applicants respectfully traverse these rejections.
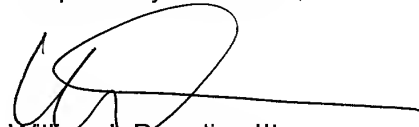
Claims 3, 4, 6, and 9 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.

CONCLUSION

In light of the above remarks, it is believed that Claims 1-26 are in condition for allowance and, therefore, a Notice of Allowance of 1-26 is respectfully requested. If the Examiner's next action is other than allowance as requested, the Examiner is requested to call the undersigned at (408) 236-6646.

Respectfully submitted,

July 19, 2007
Dated

William L. Paradice III
Attorney for Applicant
Reg. No. 38,990